

DEPARTMENT OF HEALTH SERVICES

714 / 744 P STREET
P.O. BOX 942732
SACRAMENTO, CA 94234-7320
(916) 654-0499



January 15, 2002

CHDP Program Letter No.: 02-01

TO: ALL COUNTY CHILD HEALTH AND DISABILITY PREVENTION (CHDP)
PROGRAM DIRECTORS, DEPUTY DIRECTORS, MEDICAL
CONSULTANTS, STATE CHILDREN'S MEDICAL SERVICES (CMS)
BRANCH STAFF AND REGIONAL OFFICE STAFF

SUBJECT: CHDP PROVIDER INFORMATION NOTICE NO. 02-01 CHDP
HEALTH ASSESSMENT GUIDELINES UPDATE: "SECTION 507:
ASTHMA IN CHILDREN, AGE BIRTH TO FIVE YEARS AND
ANTICIPATORY GUIDANCE"

Enclosed is Provider Information Notice No. 2-01 regarding the distribution of Section 507 of the CHDP Health Assessment Guidelines, entitled "Asthma in Children age Birth to Five Years and Anticipatory Guidance". As discussed in CHDP Information Notice No. 01-L, dated November 30, 2001, we have developed a Provider Promotional Packet that will include this Provider Information Notice and the new asthma component of the guidelines. Consequently, you will not need to duplicate the materials described in this letter.

As per CHDP Information Notice No. 01-L and your choice, either you will mail the prepared packets, which will be delivered to you, or the CMS Branch will mail the packets directly to the providers.

If you have any questions, please contact your Regional Nurse Consultant.

A handwritten signature in black ink that reads "Maridee Gregory MD".

Maridee A. Gregory, M.D., Chief
Children's Medical Services Branch

Enclosures

ASTHMA ASSESSMENT IN CHILDREN, AGE BIRTH TO FIVE YEARS and ANTICIPATORY GUIDANCE

SCREENING REQUIREMENTS

- Through a careful history and physical exam, using the Guidelines in Table 507.1:
 - ☐ Identify predictors of developing asthma.
 - ☐ Ask questions to identify asthma symptoms and symptom patterns.
 - ☐ Ask questions to identify triggers of asthma symptoms.
- Identify children, age birth to five years, who are already diagnosed with asthma:
 - ☐ Review their asthma medical management plan.
 - ☐ Elicit parental concerns.

CONSIDERATIONS FOR TREATMENT, REFERRAL AND/OR FOLLOW-UP

- Arrange for further physical examinations and testing if the results of screening suggest asthma.
- Refer infant/child to pediatrician experienced with asthma for assessment, treatment and an asthma management plan, if mild persistent asthma is suspected and to a pediatric asthma specialist (allergist or pulmonologist) if moderate or severe persistent asthma is suspected. (See Table 507.2 for asthma symptom classifications.)
- Provide asthma education if infant/child has symptoms of asthma including:
 - ☐ Understanding asthma, asthma symptoms, and symptom patterns.
 - ☐ Identifying triggers of asthma symptoms and assisting with their avoidance.
 - ☐ Addressing tobacco smoking in the home; and smoke from fireplace.
 - ☐ Addressing other home environmental issues such as:
 - Vacuuming, mopping, and damp dusting frequently to reduce dust;
 - Covering mattresses/pillows with plastic covers;
 - Using synthetic fiber blankets, clothing, carpets; and
 - Treating fixtures subject to dampness for mold.
- Provide additional asthma education if infant/child has diagnosis of asthma including:
 - ☐ Addressing goals of asthma therapy.
 - ☐ Understanding medications and maintenance and emergent treatments.
 - ☐ Suggesting community resources to parents or caregivers for their children with asthma.

- Provide follow-up after initial asthma education through referral to pediatrician experienced with asthma or to a pediatric asthma specialist if family needs additional education about caring for the infant/child.

RATIONALE

Asthma is the most common chronic disease of childhood, affecting over five million children in the United States. From 1980 to 1996, the number of Americans with asthma more than doubled to almost 15 million, with children under five years of age experiencing the highest rate of increase. Fifty to eighty percent of children with asthma develop symptoms before the age of five years.

The steady rise in the prevalence of asthma constitutes an epidemic, which by all indications is continuing. Asthma often causes restriction in many activities in which the child participates (even play), many nights of lost sleep, and disruption in the daily routines of the child and the family. Children, with asthma, account for almost three million physician visits and 200,000 hospitalizations each year. They are absent for over ten million school days each year due to asthma related events. To care for these children, parents must often take time away from work. The annual health care cost for treating children with asthma is approaching \$2 billion, and it is estimated another \$1 billion is expended for indirect costs associated with caring for these children.

The underlying causes of asthma and its increasing incidence are not yet fully understood. Factors that appear to be important in the rise in asthma morbidity include environmental exposures (both indoor and outdoor) and poor quality and limited access to health care services. A recent report on asthma and indoor air exposure concluded that there was an association between environmental tobacco smoke exposure and the development of asthma in younger children. Maternal smoking during pregnancy was particularly associated with the development of asthma in young children. Environmental tobacco exposure caused exacerbations of asthma in pre-school aged children. Indoor air allergens, such as animal dander or secretory products, cockroaches, and house dust mites were also determined to cause asthma exacerbations in sensitized individuals.

In the past ten years, there have been significant advances in our understanding of asthma. The following three recent publications are excellent resources that provide practitioners with better monitoring techniques, an improved understanding of the environmental factors that make asthma worse and best practices in asthma medical management:

- ❖ The American Academy of Allergy, Asthma, and Immunology 1999 *Pediatric Asthma: Promoting Best Practice, Guide to Managing Asthma*, located online at <http://www.aaaai.org/professional/initiatives/pediatricasthmaguidelines/default.stm>.
- ❖ The National Institutes of Health, National Heart, Lung and Blood Institute:
 - *Guidelines for Diagnosis and Management of Asthma* (NIH Pub. No. 97-4051), July 1997, online at (<http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm>).
 - *Practical Guide for the Diagnosis and Management of Asthma* (NIH Pub. No. 97-4053), October 1997.

Unfortunately, the advances in asthma management recommended in these guidelines have not been widely implemented. A recent study of children in the United States found that many children with moderate to severe asthma do not receive recommended maintenance (control) or rescue medications, and children five years and younger were more likely to receive inadequate therapy than older children. (Halterman, JS, et al. *Pediatrics*. 2000: 105:272-276.)

Infants and children need to be correctly diagnosed with asthma, and they need good asthma care. Their families need education about asthma and assistance with adherence to the management plan. They need to know the expected outcomes of effective asthma care and how to achieve them.

Table 507.1 **ASTHMA ASSESSMENT IN CHILDREN AGE BIRTH TO FIVE YEARS**
HEALTH ASSESSMENT GUIDELINES

Screening Requirements	Criteria
<p>Identify Predictors of Developing Asthma</p> <p>Identify Symptoms and Symptom Patterns of Asthma</p> <p>Identify Triggers of Symptoms of Asthma</p>	<p>Careful History</p> <ul style="list-style-type: none"> ❖ History of rashes (e.g., eczema, atopic dermatitis), food intolerance, allergic rhinitis, severe or prolonged lower respiratory tract infections needing hospitalization. ❖ Family history of asthma, wheezing, allergies, maternal smoking during pregnancy. <p>Symptoms</p> <ul style="list-style-type: none"> ❖ Coughing (even if slight), coughing with activity, wheezing, shortness of breath or rapid breathing, chest tightness, symptoms improve with bronchodilator. ❖ Associated symptoms: Fatigue, chest hurts or feels funny, infant has feeding difficulties, infant grunts while sucking, child avoids certain activities (e.g., sports, sleepovers). <p>➤ Symptom Patterns:</p> <ul style="list-style-type: none"> ◆ Perennial, seasonal, or both ◆ Continual, episodic, or both ◆ Onset, duration, frequency (number of days or nights, per week or month) ◆ Diurnal variations, especially nocturnal and on awakening in early morning ◆ Activity-induced cough or shortness of breath <p>➤ Triggers of Asthma Symptoms:</p> <ul style="list-style-type: none"> ◆ Viral respiratory infections ◆ Exposure to environmental irritants <ul style="list-style-type: none"> ● Tobacco smoke, wood smoke ● Smog, automobile exhaust ● Perfumes, incense ◆ Exposure to allergens <ul style="list-style-type: none"> ● House dust mites, cockroaches ● Animal dander or secretory products ● Fungi or molds ● Pollens ◆ Increased activity, active play ◆ Aggravating physical conditions not appropriately tolerated <ul style="list-style-type: none"> ● Rhinitis ● Sinusitis

Identify Triggers of Symptoms of Asthma	<ul style="list-style-type: none"> • Gastroesophageal reflux ◆ Stressors for infant/child (e.g., changes in household) ◆ Strong emotional expression (e.g., laughing, crying) ◆ Changes in weather, humidity, temperature ◆ Exposure to cold air ◆ Drugs (e.g., non-corticosteroidal anti-inflammatory) ◆ Food, food additives, and preservatives (e.g., sulfites)
Identify Predictors of Asthma and Symptoms of Asthma	<p>Physical Examination</p> <p>Examine infant/child in supine and upright positions. Because asthma symptoms vary throughout the day, the respiratory system may appear normal during physical examination. During an asthma attack, constriction of the airway smooth muscle, swelling, and mucus secretion tend to close the smaller airways. To compensate, the infant/child breathes at a higher lung volume to keep the air flowing through the airways. The greater the airway limitation, the higher the lung volume must be to keep airways open.</p> <p>Clinical Signs Include:</p> <ul style="list-style-type: none"> ❖ Wheezing, especially on expiration ❖ Dyspnea <ul style="list-style-type: none"> ➤ Flaring of the nostrils when breathing in ➤ Interrupted talking ➤ Agitation ➤ Hyperinflation (use of accessory muscles, appearance of hunched shoulders, hunching forward, or preferring not to lie down). ➤ Retractions ❖ Cough <ul style="list-style-type: none"> ➤ Chronic or recurring ➤ Worse particularly at night and in the early hours of the morning, and disrupting sleep ❖ Associated conditions <ul style="list-style-type: none"> ➤ Eczema, atopic dermatitis ➤ Rhinitis ➤ Allergic shiners ➤ Nasal crease ➤ Swelling of and/or pale nasal mucosa

Identify Children Diagnosed with Asthma

- **Review Their Asthma Medical Management Plan, and**
- **Elicit Parental Concerns**

Consider asthma if ANY indicators from the history and physical exam are present. Confirm by referring to pediatrician or pediatric asthma specialist for objective measures of pulmonary function (if possible).

- ❖ Spirometry is recommended to establish a diagnosis of asthma, but may not be feasible in young children, particularly under age three years.
 - For these children, clinical judgment and/or response to asthma treatment may be the only reliable means for diagnosing asthma.

Diagnosis of Asthma

- ❖ Table 507.2 describes intermittent and persistent asthma.

Goals of Therapy Include:

- ❖ Prevent chronic and troublesome symptoms.
- ❖ Prevent exacerbations of symptoms.
- ❖ Maintain normal activity levels.
- ❖ Maintain normal pulmonary function.
- ❖ Optimize pharmacotherapy, minimize side effects.
- ❖ Satisfy the family's expectations/goals for asthma care.
- ❖ Expanding parental knowledge of asthma information and supportive community resources.

Infants/Children with Persistent Asthma Should Have An Asthma Management Plan:

- ❖ A long-term, daily Asthma Management Plan describing regular, control medications and measures to keep asthma under control; information on developing skills using medication delivery devices, if age appropriate.
- ❖ A short-term, Action Plan describing actions to take when asthma worsens, including:
 - What rescue medications are for and when to take them.
 - When to contact the physician and/or go to the emergency room or urgent care center.
- ❖ Education on triggers and environmental modifications to reduce asthma events.

**Table 507.2 ASTHMA ASSESSMENT IN CHILDREN AGE BIRTH TO FIVE YEARS
CLINICAL FEATURES OF ASTHMA BEFORE TREATMENT**

Classification	Days with Symptoms	Nights with Symptoms
Severe Persistent	Continual	Frequent
Moderate Persistent	Daily	≥ 5 Nights per Month
Mild Persistent	3 to 6 Days per Week	3 to 4 Nights per Month
Mild Intermittent	≤ 2 Days per Week	≤ 2 Nights per Month